CLAIMS:

1.   A wearable device (30) arranged for enabling a bioelectrical interaction (M,S)
with an individual by means of a first signal (S), said device comprising an electrode (2)
having a contact surface arranged to be brought into contact with the individual's skin (I) for
carrying out said interaction, the electrode comprising motion artifact detection means (4),
5   characterized in that the motion artifact detection means (4) is arranged to determine a
component normal to the contact surface of an external force applied to the electrode under
operating conditions, said motion artifact detection means being arranged to provide a second
signal (M) and comprising motion artifact correction means (20) to process the second signal
in order to correct the value of the first signal for a motion artifact.
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2.   A wearable device according to claim 1, characterized in that the device
comprises control means (16) arranged to analyze the second signal (M), said control means
(16) being further arranged to actuate the motion artifact correction means (20) upon an
occurrence of a predetermined event.
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3.   A wearable device according to claim 2, characterized in that the device
comprises means for deriving the occurrence of the predetermined event from the second
signal.

20   4.   A wearable device according to any one of the preceding claims, characterized
in that the motion artifact detection means (1a) comprises a pressure sensor (4) arranged on a
rear surface of the electrode (2), said rear surface being opposite the contact surface.

5.   A wearable device according to claim 4, characterized in that the pressure
25   sensor (4) comprises a thin film.

6.   A wearable device according to any one of the preceding claims, characterized
in that the motion artifact correction means comprises a linearization element, said

linearization element being arranged to correct for a non-linearity in a relation between an absolute value of the second signal and the external force.

7.   A wearable device according to any one of the preceding claims, characterized in that the electrodes are of a dry type.

8.   An electrode assembly (1) comprising an electrode having a contact surface, the assembly being arranged to enable a bioelectrical interaction with an individual by means of a first signal (S) when the contact surface is brought in contact with the individual's skin, said electrode assembly comprising motion artifact detection means (4), characterized in that the motion artifact detection means (4) is arranged to determine a component normal to the contact surface of an external force applied to the electrode under operating conditions, said motion artifact detection means being arranged to provide a second signal (M), related to the external force.

9.   An electrode assembly according to claim 8, characterized in that the artifact detection means (4) comprises a pressure sensor arranged on a rear surface of the electrode, said rear surface being opposite the contact surface.

10.   An electrode assembly according to claim 9, characterized in that the pressure sensor comprises a thin film.